

L 10635-63

ACCESSION NR: AP3002317

contact each other, and the edges should be pressed together with considerable plastic deformation to obtain the same reinforcement on both sides. The inside and outside flash can be machined off. Argon consumption of about 10 l/min is sufficient, since the metal remains liquid for only about 0.1 sec. Microscopic examination revealed no defects in the weld. It has a recrystallized α -Ti microstructure with grains somewhat larger than those of the parent metal. The weld metal had the same mechanical properties as the parent metal: a tensile strength of 47.0—47.6 kg/mm², yield strength of 40.0—42.6 kg/mm², elongation of 14.6—15.0%, and reduction of area of 61.9—66.1%. Annealing for 1 hr at 650—700C reduced the weld metal hardness from 227 HV to that of the parent metal, about 175 HV. "Candidate of Technical Sciences S. M. Gurevich participated in the development of the welding technique." Orig. art. has: 1 table and 5 figures.

ASSOCIATION: Institut elektrosvarki im. Ye. O. Patona AN USSR (Electric Welding Institute, AN USSR)

SUBMITTED: 1974a63

DATE ACQ: 12Jul63

ENCL: 00

SUB CODE: ML

NO REF SOV: 002

OTHER: 000

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Card 2/2

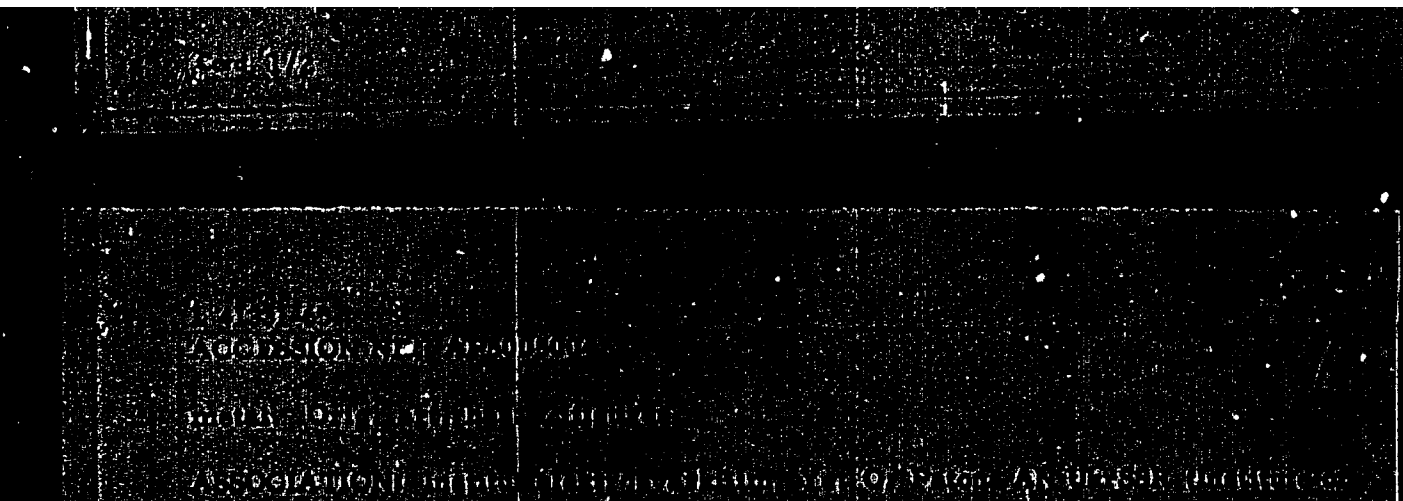
KIRDO, I.V.; SKACHKO, Yu.N.

Radio-frequency welding of brass tubes. Avtom. svar. 16
no.11:44-50 N '63. (MIRA 17:1)

1. Institut elektrosvarki imeni Ye.O. Patona AN UkrSSR.

"APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000722610015-7

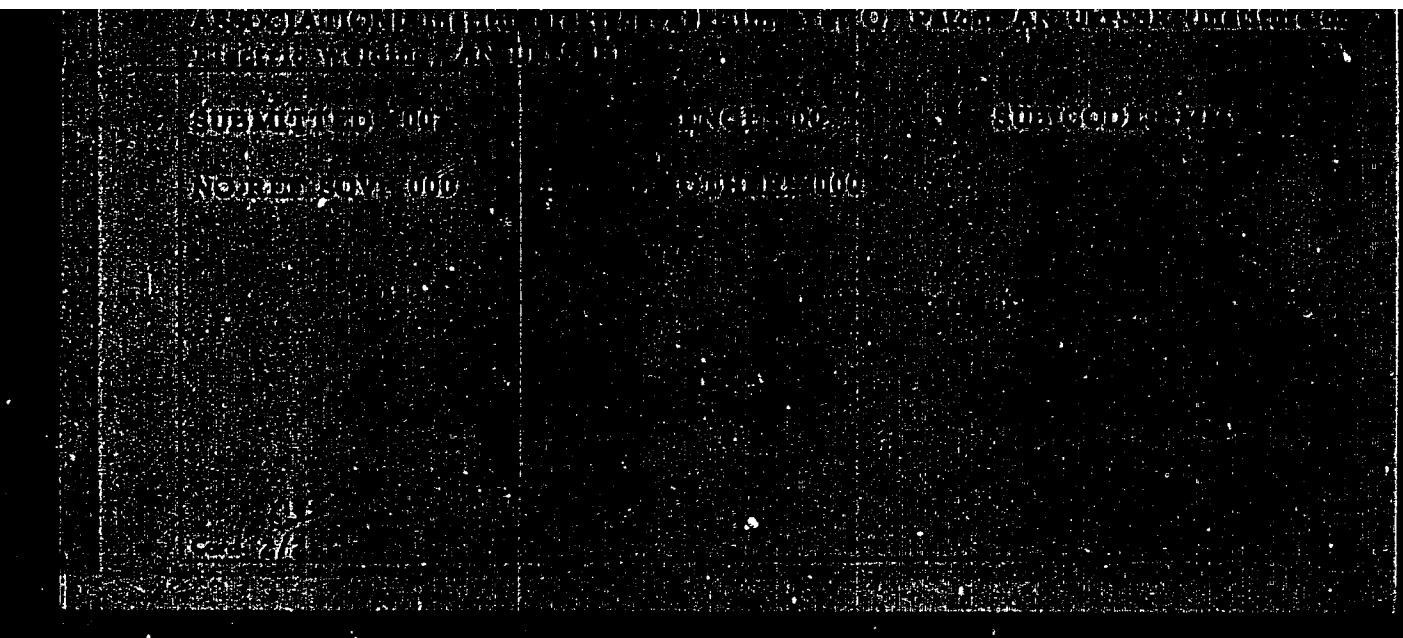


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CIA-RDP86-00513R000722610015-7"

SAVOSKINA, L.S.; KIRDO, I.V.

Topical exhibition "New types of pipe and their production by
modern methods". Met. i gornorud. prom. no.2:86-87 15-Apr '65.
(MIRA 18:5)

MORACHEVSKIY, I.I.; SHTEYGL'BERG, Ye.Ya.; CHERNOGORENKO, V.B.;
KIRDO, M.A.

Relation between the heat of wetting, the bound water content,
the hygroscopicity, and the ion exchange capacity of clays.
Koll.shur. 22 no.3:340-343 My-Je '60. (MIRA 13:7)

1. Nauchno-issledovatel'skiy institut stroitel'nykh materialov
i izdeliy, Kiev.
(Clay) (Heat of wetting) (Ion exchange)

CA

KIRDODA, I.

12

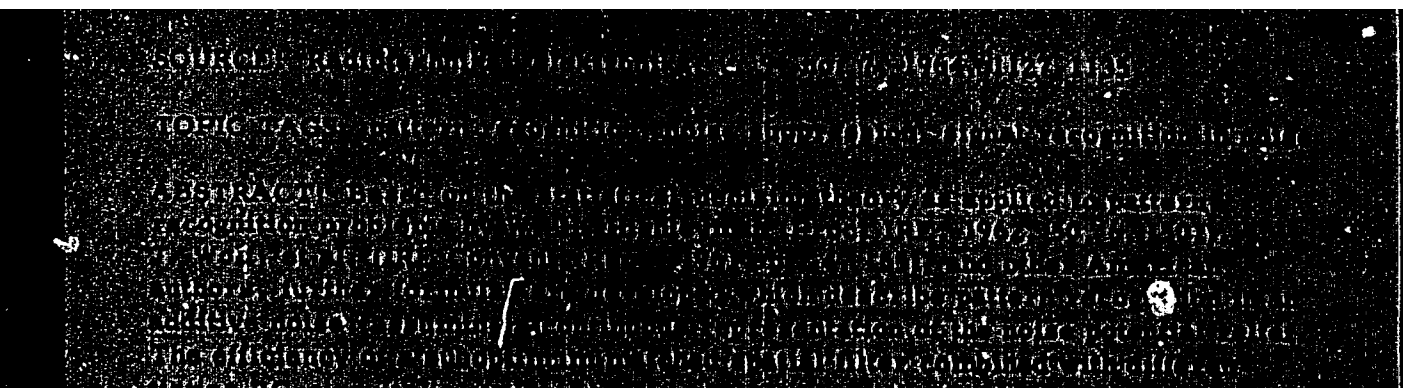
High-quality milk sugar. I. Kirdoda (Cheese Factory Krasnodar). *Molochnoye Prom.* 13, No. 1, 11-13, 1952. Fairly detailed explanation is given for production of a good grade of milk sugar at the Storo-Minsk plant. After deproteinization by heat-treatment the product is crystallized by cooling 10 hrs. at 15-18°, then 10-12 hrs. at 10-12°, and 2 washes with cold H₂O. G. M. Kirodipoff

KIRDYANOV, M.

School of self-help. Voen. znaniya. 38 no.11:36-37 N '62.
(MIRA 15:11)

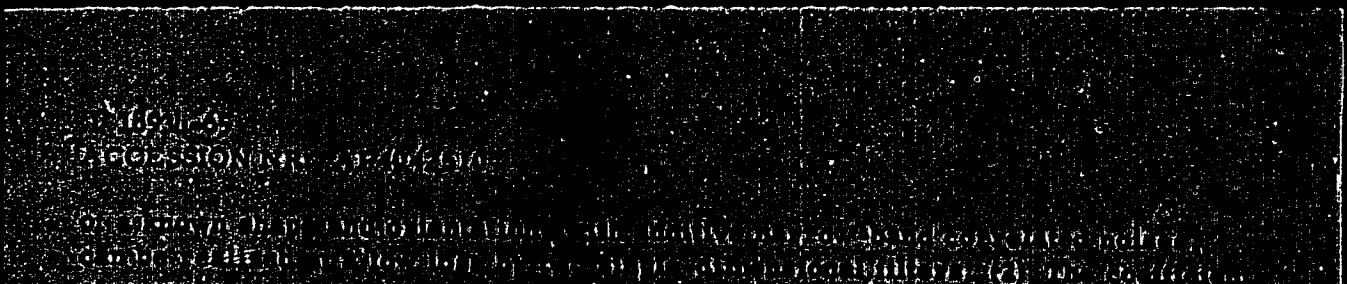
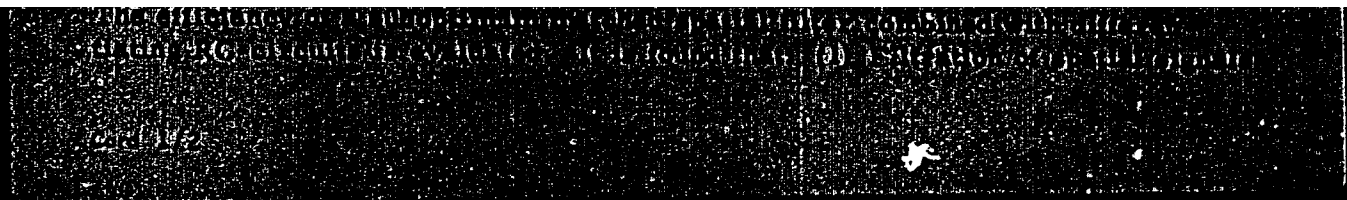
1. Nachal'nik Gorodskoy shkoly grazhdanskoy obrony,

g. Gor'kiy.
(Gorkiy--Civil defense--Study and teaching)



"APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000722610015-7

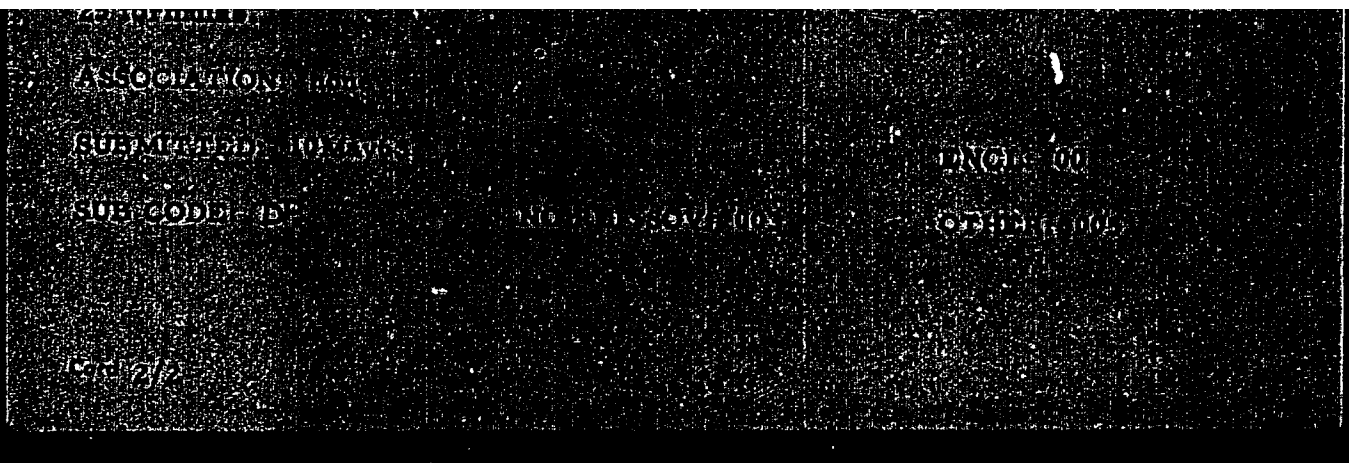


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APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000722610015-7"

L 7795-66 EWT(1) GW

ACC NR: AP5027615

SOURCE CODE: UR/0109/65/010/011/1941/1948

AUTHOR: Ananov, N. I.; Basharinov, A. Ye.; Kirdyashev, K. P.; Kutuza, B. G.

ORG: none

TITLE: Fluctuations of radiation from a cloudy atmosphere in the millimeter band

SOURCE: Radiotekhnika i elektronika, v. 10, no. 11, 1965, 1941-1948

TOPIC TAGS: atmospheric radiation, millimeter band radiation, radio telescope

ABSTRACT: In the case of a cloudy atmosphere, the turbulent pulsations of cosmic r-f radiation are compounded by single peaks which are due to the variations of the integral absorption caused by wind-drifted clouds in the field of vision of a radio telescope. Statistical evaluation of both the turbulent pulsations (clear sky) and the peaks (cloudy sky) in terms of radio-brightness temperature is offered. An experimental verification was carried out (in 1963) by means of modulation radiometers on 2-meter radio telescopes operating at 4- and 8-mm

Card 1/2

UDC: 551.594.6

L 7795-66

ACC NR: AP5027615

wavelengths and on a 22-meter radio telescope working at 8-mm wavelength. Over 150 experiments covered both overcast and broken-cloud conditions and various types of clouds. The mean effective value of the cloud-radiation variation was 6.75K, with a mean square spread of 4.25K; the most probable value of variations lay within 5—5.5K. The curves of distribution of the mean intensity of variations and of the correlation function of variations are shown. Orig. art. has: 5 figures and 16 formulas.

SUB CODE: 03, 17 / SUBM DATE: 20Jul64 / ORIG REF: 009 / OTH REF: 002

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Card 2/2

L 9489-66 EWT(1) GW
ACC NR: AP6000556

SOURCE CODE: UR/0109/65/010/012/2105/2112

AUTHOR: Kirdyashev, K. P.

ORG: none

TITLE: Statistical characteristics of cloudy-atmosphere radiation in the 0.8-cm band

SOURCE: Radiotekhnika i elektronika, v. 10, no. 12, 1965, 2105-2112

TOPIC TAGS: atmospheric physics, rf radiation, atmospheric rf radiation

ABSTRACT: Statistical data on variations of atmospheric radiation in the 0.8-cm band was obtained with a 22-m radiotelescope by FIAN SSSR. With a modulation-radiometer sensitivity of 30 per sec², variations of the radiobrightness temperature caused by clouds were measured. More than 100 measurement sessions were conducted in 1963. Typical results are:

	Overcast:		Broken clouds:	
	Nimbostratus	Stratus	Cumulus	Stratocumulus
Mean-square variation of radiobrightness temperature	12.1	4.4	6.5	4.7 K
Number of sessions	21	18	32	14

Card 1/2

UDC: 523.164.4

L 9489-66

ACC NR: AP6000556

6

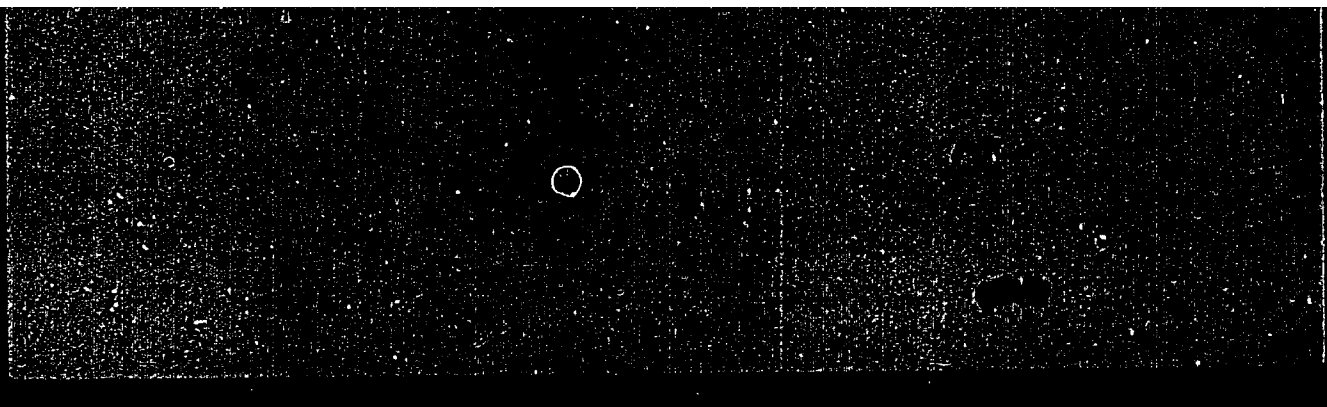
From these data, the distribution of the variations was calculated for all types of clouds, the shape of the respective correlation functions was determined, the relation between the relative variations and the zenith angle was established, and the mean-square variations were compared with the intervals of spatial correlation. It was found that 1) the atmospheric-radiation variation is essentially dependent on the condition and structure of clouds; in 20% observations, the mean-square variation of the radiobrightness temperature was over 10K and reached 20--25K in the case of heavy cumulus and nimbus clouds; 2) the distribution of probability of temperature peaks is determined by the variation of the cloud integral absorption; it differs essentially from the normal in the cases of broken clouds and large variations; 3) the shape of the correlation functions of the variations is close to exponential; time-correlation intervals exceed 70 sec in 50% cases; the most probable angular correlation intervals are 10--15°, spatial, 200--500 m; 4) the radiation variations are greater in the clouds having larger correlation intervals. "In conclusion, the author wishes to thank N. I. Ananov for directing the work and A. Ye. Basharinov for discussing the methods and results." Orig. art. has: 6 figures, 2 formulas, and 2 tables. [03]

SUB CODE: 04 / SUBM DATE: 21Aug64 / ORIG REF: 004 / OTH REF: 001 ATD PRESS 4/64

Card 2/2

"APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000722610015-7



APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000722610015-7"

KIRDYASHEV, Yu.N., kandidat tekhnicheskikh nauk

Calculating the process of friction clutch engagement in automobiles
and tractors. Trudy LPI no.2:167-176 '54. (MLRA 8:8)
(Automobiles--Clutches) (Tractors--Clutches)

KRYUKOV, A.D., kandidat tekhnicheskikh nauk; KIRDYASHEV, Yu.N., kandidat tekhnicheskikh nauk.

Experimental determination of friction clutch drag. Avt. i trakt. prom.
no.1:26-31 Ja '56. (MIRA 9:6)

1.Leningradskiy politekhnicheskiy institut imeni Kalinina.
(Automobiles--Clutches)

PAVLOV, Ya.P., kand.tekhn.nauk, dots.; ~~KIRDYASHEV, Yu.N.~~ kand.tekhn.
nauk, dots.; LEBEDEV, A.S., kand.tekhn.nauk, dots.; FEDOSOVA,
I.V., assistant

Coefficients of friction for asbestos-bakelite materials. Trudy
LIEI no.23:5-17 '58. (MIRA 12:5)
(Bakelite--Testing)) (Friction)

KIRDYASHEV, Yu.N., kand.tekhn.nank, dots.

Designing block brakes for automobiles. Trudy LII no.23:
88-100 '58. (MIRA 12:5)
(Automobiles--Brakes)

KIRDYASHEV, Yu.N., kand.tekhn.nauk, dots.

Analyzing the process of the engagement of the main friction
clutch. Trudy LIEI no.23:101-111 '58. (MIRA 12:5)
(Clutches (Machinery))

KIRDYASHEV, Yu.N., kand. tekhn. nauk, dotsent

Using electronic digital computers in calculating the number
of teeth for coaxial gear transmissions with several satellites.
Vest. mashinostr. 44 no.9:13-18 S '64.

(MIRA 17:11)

KIRDYASHEV, Yu.N.

Basic general diagrams of planetary transmissions with two degrees of freedom. Trudy LIEI no.50:5-19 '64.

Synthesis of planetary gearboxes without closed contours.
Ibid.:20-49

Synthesis of planetary transmissions having one closed contour.
Ibid.:50-84 (MIRA 18:4)

KIPDYASHIN, Ya.N.; GOLUBEV, Yu.N.

Analysis of the methods of shifting stepped gearboxes. ~~Trudy~~
No. 50:84-93 '64. (MIR 1817)

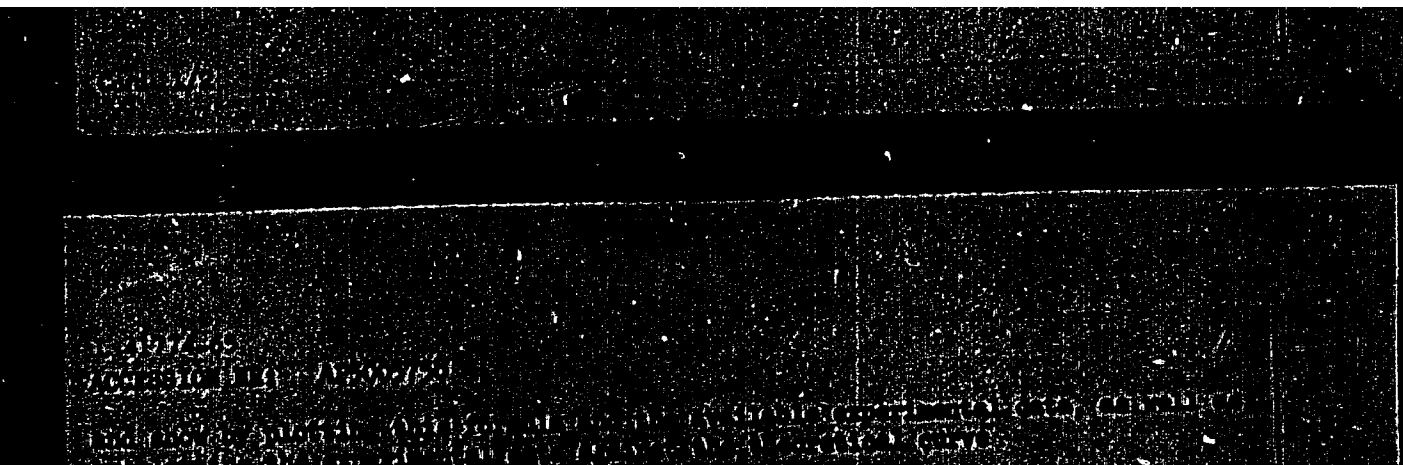
KIRDYASHEV, Yu.N.

Using electronic computers in calculating the number of teeth for
coaxial gears. Trudy LIEI no.57:5-15 '65.

(MIRA 18:8)

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CIA-RDP86-00513R000722610015-7

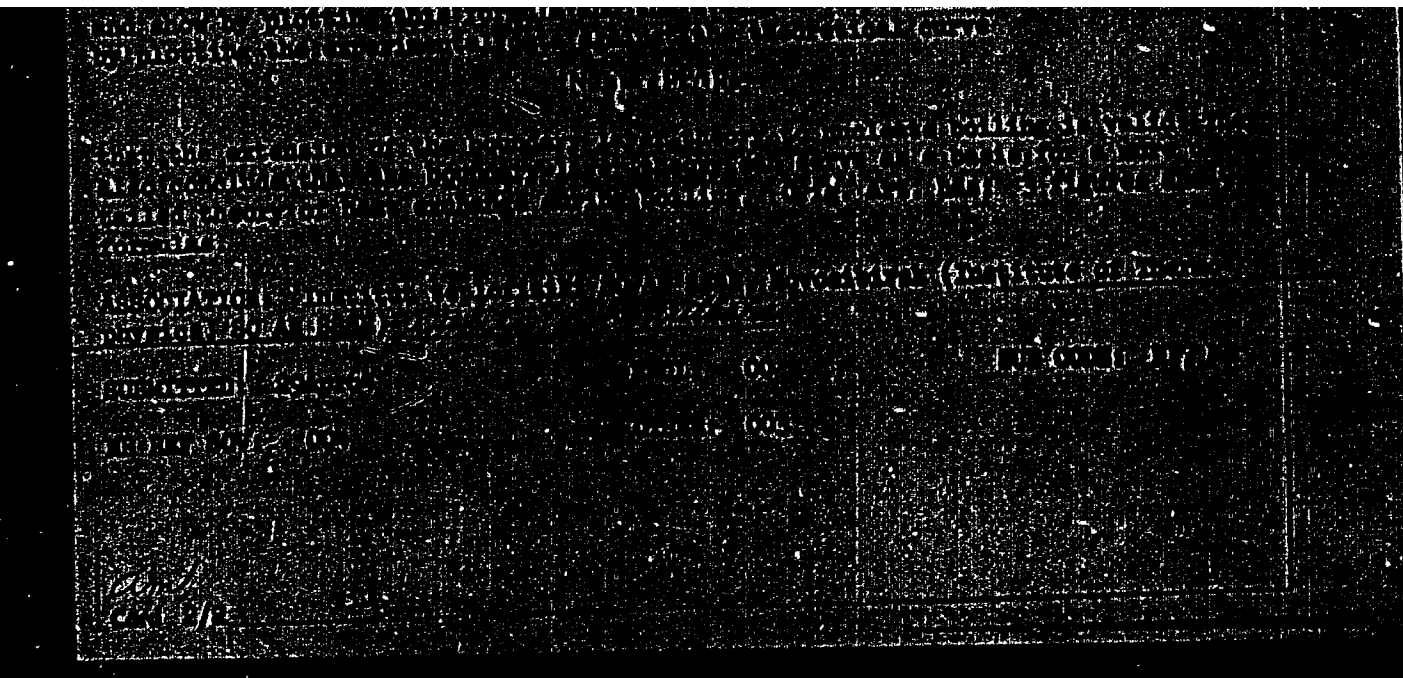


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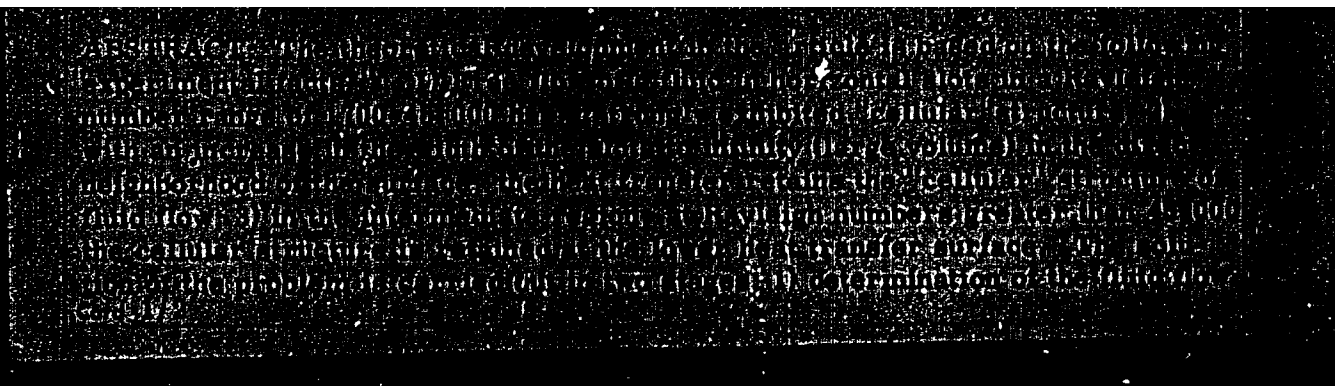
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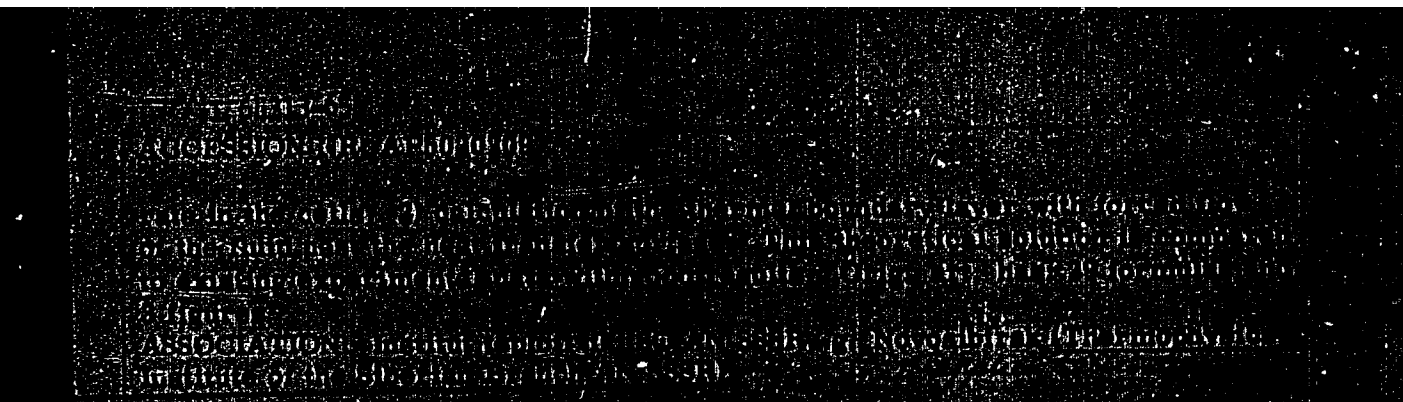
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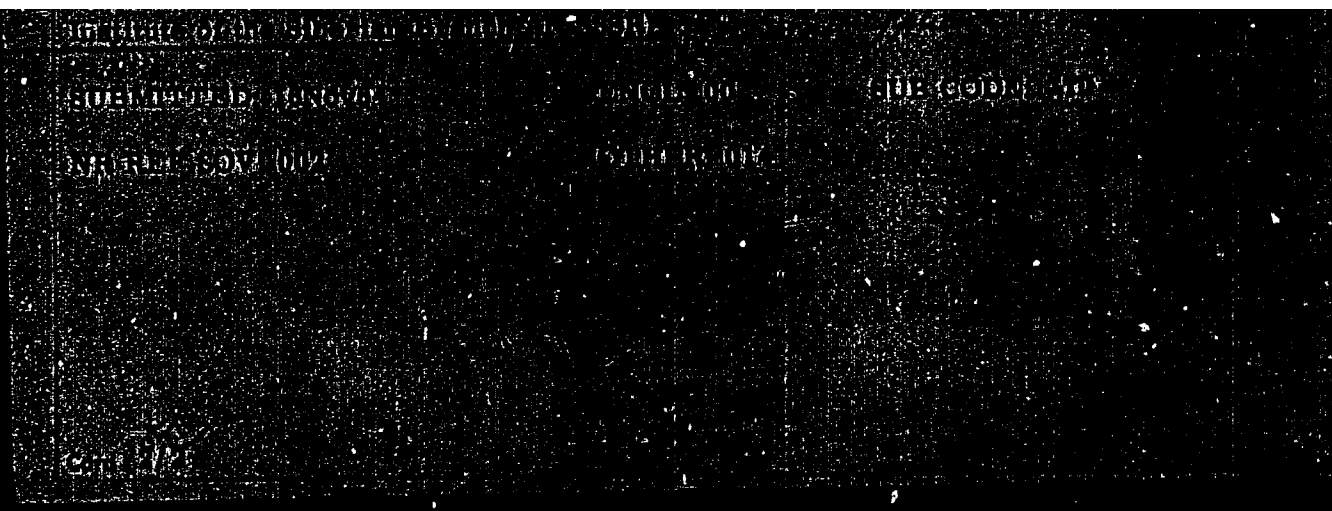
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CIA-RDP86-00513R000722610015-7"

KIRDYUCHEVA, A.I.; PATT, V.A., nauchn. red.; SHNEYDERMAN, B.A.,
red.

[Continuous and rapid methods for the preparation of
dough for baked products; rewiw of foreign patents]
Nepreryvnye i uskorennye sposoby prigotovleniia testa
dlia khlebobulochnykh izdelii; obzor inostrannykh pa-
tentov. Moskva, TsNIIPI, 1963. 31 p. (MIRA 17:9)

KIRNICHNY, G.L., inzhener.

~~Device for cutting out fire tubes. Rech.transp. 14 no.10:27-28~~
0 '55. (Boilers, Marine) (MIRA 9:1)

KIREICHEV, G.L.

With inventors and efficiency workers of the Volga River.

Rech. transp. 15 no.10:11-13 0 '56.

(MLBA 10:2)

1. Uchenyy sekretar' Srednevolzhskogo basseynovogo upravleniya
nauchno-tekhnicheskogo obshchestva vodnogo transporta.
(Volga Valley--Inland water transportation)

KIREL', G. V.

ARAKZLOV, K.N.; KIREL', G.V.; KULIYEV, S.M., professor, redaktor; GONCHAROV, I.A.,
tekhnicheskiiy redaktor

[Work practices of boring brigade leader G.A. Temirkhanov] Opyt
raboty burovoi brigady mastera G.A. Temirkhanova. Red. S.M.
Kuliev. Baku, Gos. nauchno-tekhn. izd-vo neft. i gorno-toplivnoi
lit-ry, Azerbaidzhanskoe otd-nie, 1954. 58 p. [Microfilm]
(Oil well drilling) (MLRA 10:5)

KIRSHUKOV, I.I.

Measuring the temperature of flames. Trudy VNIIM no.5:105-120
'49. (MIRA 11:11)

(Pyrometry)

XIRENKOV, I.I.

~~Measuring temperatures of glow flames. Trudy VNIIM no.9:124-142~~
'50. (MIRA 11:6)

(Pyrometry)

KIRENKOV, I.I.

GORDOV, A.N.; KIRENKOV, I.I.; LAPINA, E.A.

Methods of checking optical pyrometer readings. Izv. tekhn.
no.2:46-49 Mr-Apr '55. (MIRA 8:9)
(Pyrometers)

KIRENKOV, I. I.

USSR/Physical Chemistry - Thermodynamics. Thermochemistry. Equilibrium.
Physicochemical Analysis. Phase Transitions, B-8

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 61005

Author: Gordov, A. N., Kirenkov, I. I.

Institution: None

Title: Determination of Temperature Coefficient of Nitrogen Pressure

Original
Periodical: Tr. Vses. n.-i. in-ta metrol., 1955, No 25, 31-34

Abstract: Measured was the pressure of pure nitrogen filling the operation system of a constant volume gas thermometer, at temperatures of melting ice (P_0) and boiling (P_B). Calculated were the temperature coefficients of nitrogen pressure at constant P_0 : $\alpha_v = P_B - P_0/t_B P_0$ where t_B temperature of boiling water. On the basis of measurements of α_B for different values of P_0 (317, 501, 733, 894 mm kg) by means of the method of least squares was determined the dependence of α_B on initial pressure in the system: $\alpha_v = (0.0036609 + 0.129 \cdot 10^{-7} P_0)$ 1/degree. Since $\alpha_1 = \lim \alpha_v$

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USSR/Physical Chemistry - Thermodynamics. Thermochemistry. Equilibrium.
Physicochemical Analysis. Phase Transitions, B-8

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 61005

Abstract: with $P_0 \rightarrow 0$ (α_1 -- temperature coefficient of pressure of ideal gas) and inasmuch as $1/\alpha_1 = T_0$ (T_0 -- temperature of melting ice) it was found that $T_0 = 273.16 \pm 0.02^\circ \text{K}$.

Card 2/2

GORDOV, A.N.; KIRANKOV, I.I.; LAPINA, N.A.

New methods for checking optical pyrometers. Trudy VNIIM no.25:
70-74 '55. (MIRA 11:6)

(Pyrometers--Testing)

KIRENKOV, I. I.

24(0); 5(4); 6(2) PHASE I BOOK EXPLOITATION SOV/2215

Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii imeni D.I. Mendeleeva

Referaty nauchno-issledovatel'skikh rabot, sbornik No. 2 (Scientific Research Abstracts; Collection of Articles, No. 2) Moscow, Standartizdat, 1956. 139 p. 1,000 copies printed.

Additional Sponsoring Agency: USSR. Komitet standartov, mer i izmeritel'nykh priborov.

Ed.: S. V. Reshetina; Tech. Ed.: M. A. Kondrat'yeva.

PURPOSE: These reports are intended for scientists, researchers, and engineers engaged in developing standards, measures, and gauges for the various industries.

COVERPAGE: The volume contains 128 reports on standards of measurement and control. The reports were prepared by scientists of Institutes of the Komitet standartov mer i izmeritel'nykh priborov pri Sovetskom Ministerstve SSSR (Commission on Standards, Measures, and Measuring Instruments under the USSR Council of Ministers). The participating institutes are: VNIIM - Vsesoyuznyy nauchno-issledovatel'skiy metrologii imeni D.I. Mendeleeva (All-Union Scientific Research Institute of Metrology imeni D.I. Mendeleeva) in Leningrad; Sverdlovsk branch of this institute; VNIIM - Vsesoyuznyy nauchno-issledovatel'skiy institut komiteta standartov, mer i izmeritel'nykh priborov (All-Union Scientific Research Institute of the Commission on Standards, Measures, and Measuring Instruments), created from MOIIMP - Moskovskiy gosudarstvennyy institut mer i izmeritel'nykh priborov (Moscow State Institute of Measures and Measuring Instruments) October 1, 1950; Institut fiziko-tekhnicheskikh i radiotekhnicheskikh izmereniy (All-Union Scientific Research Institute of Physico-technical and Radio-engineering Measurements) in Moscow; MOIIMP - Kharkovskiy gosudarstvennyy institut mer i izmeritel'nykh priborov (Kharkov State Institute of Measures and Measuring Instruments); and MOIIMP - Kirovskiy gosudarstvennyy institut mer i izmeritel'nykh priborov (Kirov State Institute of Measures and Measuring Instruments). No personalities are mentioned. There are no references.

Standard Optical Pyrometers for Measuring Temperatures up to 6000° C 76

Krasovitskaya, E.M. (KHOIIMP). Investigation of Radiation Pyrometers in Order to Increase the Accuracy of Their Calibration 77

Kondrat'yeva, S.V., V.A. Korolevskiy, Ye. A. Zimanskaya, G.I. Izrael'son, and I.I. Kirenikov. (KHOIIMP). Using Objective Photometry in the Reproduction of Temperature Scales by the Optical Method in the 1003-3500°C Temperature Range 77

Lapina, I.A. (VNIIM). Designing and Studying Standard Tungsten Pyrometer Lamps 78

Lapina, E.A., A.M. Gordov, and I.I. Kirenikov (VNIIM). Designing a Standard Color Pyrometer 79

Gordov, A.M., I.I. Kirenikov, and E.A. Lapina (VNIIM). Developing a New Method of Checking Optical Pyrometers 79

Card 16/27

SOV/58-59-8-18975

Translated from: Referativnyy Zhurnal Fizika, 1959, Nr 8, p 273 (USSR)

AUTHORS: Gordov, A.N., Kirenkov, I.I., Lapina, E.A.

TITLE: Comparing Color Temperature Tubes by the Photoelectric Method

PERIODICAL: Tr. Vses. n.-1. in-ta metrol., 1958, Nr 35(95) pp 27-35

ABSTRACT: The authors describe the construction in the Khar'kov State Institute of Measures and Measuring Instruments of the "SPK-1" photoelectric apparatus, which permits a comparison of temperature tubes by an objective zero method. The device's threshold of contrast sensitivity is, on the average, 10 to 15 times lower than in the case of visual measurements. Three groups of temperature tubes were set up for the 1,400° - 1,800°, 1,900° - 2,500° and 2,500° - 2,800°C ranges respectively. These tubes were intended for the maintenance and reproduction of the color temperature scale. The first and second groups included reference tubes (RT) and first-class and second-class sample tubes (ST). RT were absent from the third group. The RT, as well as the first-class ST of the third group, were visually calibrated with the aid of a spectral pyrometer. The calibration was corrected by

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SOV/58-59-8-18975

Comparing Color Temperature Tubes by the Photoelectric Method

comparing the tubes with one another on the SPK-1. A series of first-class and second-class ST were calibrated on the SPK-1 in conformity with these tubes. An experimental investigation of the accuracy of working with the SPK-1 showed that the root-mean-square error of comparing the tubes amounts to about $\pm 1^\circ$, $\pm (2 - 2.5)^\circ$ and $\pm (4 - 8)^\circ\text{C}$ for the temperature ranges of the first, second and third groups respectively. The uniformity of calibration of the second-class ST amounts to $\pm 2^\circ$, $\pm 4^\circ$ and $\pm (6 - 10)^\circ\text{C}$ for the first, second and third groups respectively.

Ye. Antropov

Card 2/2

SOV/81-59-15-53247

Translation from: Referativnyy zhurnal. Khimiya, 1959, Nr 15, p 140 (USSR)

AUTHOR: Kirenkov, I.I.

TITLE: On the Determination of the Homogeneity of Thermocouples in Exact Measurements

PERIODICAL: Tr. Vses. n.-i. in-ta metrol., 1958, Nr 35 (95), pp 84-86

ABSTRACT: A method has been proposed for determining the homogeneity of thermocouples which are applied in standard and checking operations. It consists in the direct measurement of the emf between two thermostat-regulated ends of a thermoelectrode, the central part of which is in a tubular furnace of small diameter. The thermoelectrode is placed into the furnace in such a way that the sections of the wire which during operation are in the field of great temperature gradients, are placed into the field of homogeneous temperature. Unchecked remains only the section of the thermoelectrode which is located near the junction which is usually in the field of homogeneous temperature during operation. The method makes it possible to decide on the maximum error which originates due to the non-homogeneity of the thermoelectrodes of the applied thermocouples.

A. Vorob'yev.

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SOV/58-59-8-18971

Translated from: Referativnyy Zhurnal Fizika, 1959, Nr 8, p 272 (USSR)

AUTHOR: Kirenkov, I.I.

TITLE: A Method of Setting up a Color Temperature Scale

PERIODICAL: Tr. Vses. n.-i. in-ta metrol., 1958, Nr 35 (95), pp 118-120

ABSTRACT: The photoelectric method is used to achieve a direct experimental re-production of the scale of color temperature (CT). A standard tube (ST) is first calibrated for CT at a certain point. The flux of this tube can be nonselectively varied by means of a special diaphragm. An auxiliary tube is provided with a double-channel device for doubling brightness. When the diaphragm is open and the CT of the ST corresponds to the starting point, the brightness of both channels are equalized with the brightness of the ST at two wave-lengths. With the simultaneous shutting of the diaphragm the CT of the ST rises in such a fashion that the intensity of its radiation remains unchanged for the red rays but increases for the blue rays. When the magnitude of the intensity of the blue rays has been doubled (this can be ascertained by comparing the

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sov/58-59-8-18971

A Method of Setting up a Color Temperature Scale

flux of the ST with the joint flux of the two channels), a new value is obtained for the CT of the ST, which corresponds to twice the value of the red-blue ratio. Numerous repetitions of the described process resolve the assigned problem.

Ye. Antropov

Card 2/2

BOYALSKIY, L.A.; GORDOV, A.N.; IOSEL'SON, G.L.; KANDYBA, V.V.; KIRENKOV,
I.I.; KOVALEVSKIY, V.A.; KRAKHMAL'NIKOVA, G.A.; LAPINS, ~~T.K.~~
TERAYANTS, K.G.

Using the photoelectric method for precise work in the field of
optical pyrometry. Trudy VNIIM no.36:23-32 '58. (MIRA 11:11)
(Pyrometry)

9(9)

SOV/115-59-4-20/27

AUTHORS:

Kirenkov, I.I. and Lapina, E.A.

TITLE:

A New Method of Determining the Effective Wave Length of Visual and Photoelectric Brightness Pyrometers (Novyy metod opredeleniya effektivnykh dlin voln vizual'nykh i fotoelektricheskikh yarkostnykh pirometrov)

PERIODICAL: Izmeritel'naya tekhnika, 1959, Nr 4, pp 37-39 (USSR)

ABSTRACT:

When calibrating and checking brightness pyrometers by a radiator which is not a black body, the knowledge of the effective wave length is required for considering the spectral characteristic of the radiator. Presently, new types of series and experimental, visual and photoelectrical pyrometers are being used. For operating these instruments, it is necessary to create simple and reliable methods of measuring the effective wave length. The existing methods of measuring the effective wave length have a number of disadvantages. Therefore, the authors suggest a new method. Two light filters are selected.

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SOV/115-59-4-20/27

A New Method of Determining the Effective Wave Length of Visual and Photoelectric Brightness Pyrometers

ted, one increases and the other decreases the light temperature of the radiation source. The spectral curves of the light filters must intersect each other at a wave length which is close to the effective wave length of the pyrometers under investigation. The authors present equations for this method and consider the possible errors. Light filters satisfying the requirements for this application may be manufactured of colored glass PS-9 and SZS-17, whereby the first brand increases and the second one decreases the light temperature of a tungsten band lamp. Finally, the authors consider experimental results, obtained with this method when checking pyrometers OPK, FP-3, "Fotopir" S-1, and when selecting photo elements for the FEP-3 ~~TsLA~~ pyrometers. There is 1 graph.

Card 2/2

KIRENKOV, I.I.

Metrological characteristics of color pyrometry. Izv.tekh. 20
no.1:28-32 Ja '59. (MIRA 11:12)
(Pyrometry) (Optical measurements)

PHASE I BOOK EXPLOITATION

SOV/4940

Gordov, A. N., I. I. Kirenkov, E. A. Lapina, and N. N. Ergardt

Metody izmereniya vysokikh temperatur (High Temperature Measuring Methods) Moscow, Standartgiz, 1960. 52 p. 3,000 copies printed. (Series: Vsesoyuznyy nauchno-issledovatel'skiy institut komiteta standartov, mer 1 izmeritel'nykh priborov. Seriya obzornykh monografiy po izmeritel'noy tekhnike, vyp. 12)

E.: V. I. Startsev; Ed. of Publishing House: M. I. Kuznetsova;
Tech. Ed.: A. Ye. Matveyeva.

PURPOSE: This book is intended for technical personnel concerned with the application of modern pyrometric techniques.

COVERAGE: The book describes the methods and equipment of both radiation and optical pyrometry; a special chapter is devoted to color pyrometry. Visual and photoelectric methods of measuring high temperatures by means of pyrometers, as well as methods of checking all types of pyrometers, are investigated. Description is

Card 1/4

High Temperature Measuring Methods

SOV/4940

given of various thermocouples, their calibration and checking, and of the determination of the nonuniformity of thermocouple electrodes. The problem of using thermocouples for measuring temperatures up to 1800°C is examined. The book has been compiled by the staff members of the Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii imeni D. I. Mendeleyeva (VNIIM) (All-Union Scientific Research Institute of Metrology imeni D. I. Mendeleyev). A. N. Gordov wrote Ch. I, E. A. Lapina - Ch. II, I. I. Kirenkov - Ch. III, and N. N. Ergardt - Ch. IV. There are 127 references, 55 Soviet (including 3 translations), 55 English, 10 German, and 7 French.

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Ch. I. Radiation Pyrometry	11
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Visual optical pyrometers	16
Photoelectric pyrometers	20
Photographic methods of measuring brightness-temperature	21
Means and methods of checking	

Card 2/4

S/115/60/000/06/14/031
B007/B014

24,5500

AUTHOR: Kirenkov, I. I.

TITLE: New Measurements of the Thermodynamic Solidification
Temperature of Gold and Zinc

PERIODICAL: Izmeritel'naya tekhnika, 1960, No. 6, p. 26

TEXT: This is a brief description of a series of thermostats and a new gas thermometer introduced at the VNIIM im. D. I. Mendeleyeva (VNIIM imeni D. I. Mendeleyev). The establishment of an accurate temperature scale is intended to be achieved by means of these instruments. A detailed description of the apparatus and the measuring technique will be given in the next publications of the VNIIM. The gas thermometer contains a special separating chamber. This is a diaphragm zero pressure gauge which is accurate to within $\pm 1\mu$ mercury column. Further, it contains quartz vessels which are filled with nitrogen. A mercury pressure gauge with capacitive indication of the mercury level was developed for this gas thermometer. The constancy of the mercury level is accurately tested according to the electric capacity. The pressure gauge is read by means of

Card 1/2

New Measurements of the Thermodynamic
Solidification Temperature of Gold and
Zinc

S/115/60/000/06/14/031
B007/B014

a microscope. This new gas thermometer was used to determine the thermodynamic solidification temperatures of zinc and gold: $t(\text{Zn}) = 419.57 \pm 0.02^\circ\text{C}$ and $t(\text{Au}) = 1,064.4 \pm 0.2^\circ\text{C}$.

H

Card 2/2

S/081/61/000/011/014/040
B105/B203

AUTHORS: Aref'yeva, N. V., Diykov, U. V., Izrailov, K. S., Kirenkov,
I. I., Shemetillo, N. V.

TITLE: Measurement of the thermodynamic equilibrium temperature
between solid and liquid zinc, as well as solid and liquid
gold

PERIODICAL: Referativnyy zhurnal. Khimiya. no. 11. 1961. 164, abstract
11E25 (Tr. in-tov Kom-ta standartov. mer 1 izmerit.
priborov pri Sov. Min. SSSR. 1960. vyp. 49 (109), 13-23)

TEXT: The authors describe a new gas thermometer of improved precision.
They give results of measurements of thermodynamic equilibrium temperatures
between liquid and solid Au, and between liquid and solid Zn, and study the
instrumental errors with which the parameters of the thermometer had been
determined. The improved design of the manometer and the use of new units
increased the precision of pressure measurements. [Abstracter's note:
Complete translation.]

Card 1/1

S/115/61/000/001/003/007
B129/B201

AUTHORS: Gordov, A. H., Izrailov, K. S., Kandyba, V. V., Kirenkov, I. I., Kovalevskiy, V. A., Lapina, E. A., Finkel'shteyn, V. Ye., and Ergardt, N. N.

TITLE: Comprehensive metrological studies for developing methods and apparatus for exact measurements of high temperatures

PERIODICAL: Izmeritel'naya tekhnika, no. 1, 1961, 22-25

TEXT: The ever-increasing demands made by industry on the accuracy and range of measurements of high temperatures make it necessary to reorganize the entire metrological system in the field of measurements of high temperatures and the development of new standard and model devices on the basis of the latest achievements in the construction of precision instruments. In this connection, the VNIIM imeni D. I. Mendeleyeva and KHCIMIP developed a program for the performance of comprehensive metrological studies for the establishment of new standards and high-precision master instruments for temperatures of up to 10,000°C. This metrological research work was completed in 1960. The studies were made in four fundamental directions: thermometry

Card 1/2

Comprehensive metrological ...

S/115/61/000/001/003/007
B129/B201

of gases, thermoelectric pyrometry, optical visual pyrometry, objective pyrometry (photoelectric and radiation pyrometry). New temperature scales in the field of high temperatures were established on the basis of new methods of objective spectropyrometry. The optical pyrometers used for measuring high temperatures are not sufficiently accurate. Thus, the admissible error in measurement of the optical pyrometers *OMIP*(*OPPIR*) is up to $\pm 15^{\circ}\text{C}$ at $1,000^{\circ}\text{C}$, and up to 30°C at $2,000^{\circ}\text{C}$. It is evident that this is insufficient for many purposes and for scientific research work. In connection with the above problem, i.e., direct temperature measurement of high accuracy, the optical precision pyrometers *ЭОП-51* (*EOP-51*) and *ОП-48* (*OP-48*) spectropyrometers of the types *ИКП-57* (*IKP-57*) and *СПК* (*SPK*), and new optical devices of the type *УРП* (*URP*) were developed and introduced. The international temperature scale was used with maximum accuracy for the new instruments at the *Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii im. O. I. Mendeleyeva* (All-Union Scientific Research Institute of Metrology imeni D. I. Mendeleyev) and at the institutes of the *Komitet standartov, mer i izmeritel'nykh priborov* (Committee on Standards, Measures, and Measuring Instruments). The new pyrometers are widely used for scientific research work. There are 59 references: 49 Soviet-bloc and 6 non-Soviet-bloc.

Card 2/2

S/058/62/000/005/006/119
A160/A101

AUTHORS: Izrailov, K. S., Kirenkov, I. I.

TITLE: A capacitive mercury gage for a gas-filled thermometer

PERIODICAL: Referativnyy zhurnal, Fizika, no. 5, 1962, 13-14, abstract 5A148
("Tr. In-tov Kom-ta standartov, mer i izmerit. priborov pri Sov.
Min. SSSR", 1961, no. 51 (III), 5-11)

TEXT: A description is given of the design of a mercury gage which was built for a gas-filled high-precision thermometer. The design of the gage possesses a number of original characteristics. One of them is the use of the capacitive method of fixing the mercury level. The gage secures a measuring precision within 1 - 3 μ Hg for a pressure of 200 - 1,000 mm of the mercury column. ✓

[Abstracter's note: Complete translation]

Card 1/1

S/058/62/000/005/119
A160/A101

AUTHORS: Aref'yeva, N. V., Diykov, U. V., Izrailov, K. S., Kirenkov, I. I.,
Shemetillo, N. V.

TITLE: Thermodynamic temperatures of equilibrium between solid and liquid
zinc and between solid and liquid gold

PERIODICAL: Referativnyy zhurnal, Fizika, no. 5, 1962, 12, abstract 5A136
("Tr. in-tov Kom-ta standartov, mer 1 izmerit. priborov pri Sov.
Min. SSSR". 1961, no. 51 (III), 23-34)

TEXT: A description is given of the design of a gas-filled thermometer
built by the VNIIM. Used in the thermometer are quartz tanks and capillaries
which secure high-precision measurements of the sizes of idle space and of the
heat expansion of the tank. To separate the working gas from the gas causing a
pressure on the mercury, a special chamber is used. The chamber is a zero
membrane-pressure gage with an error not exceeding $\pm 1 \mu\text{Hg}$. A specially-designed
capacitive-type (Ref. 5A148) gage serves as a reading instrument. The thermo-
meter is used for measuring the solidification points of zinc and gold, which are
found to equal to 419.57 ± 0.02 and 1064.4 ± 0.2 C, respectively.
[Abstracter's note: Complete translation] L. Filippov
Card 1/1

S/196/62/000/008/009/017
EO32/E514

AUTHORS: Kirenkov, I.I. and Krakhmal'nikova, G.A.

TITLE: A study by the photoelectric method of the horizontal model of a black body at the temperature of solidification of gold

PERIODICAL: Referativnyy zhurnal, Elektrotekhnika i energetika, no.8, 1962, 2, abstract 8V8. (Tr. in-tov Kom-ta standartov, mer i izmerit, priborov pri Sov.Min.SSSR, 1961, no.51(111), 98-109) ✓

TEXT: Describes the apparatus and the photoelectric method of brightness calibration of standard temperature lamps in various parts of the visible region of the spectrum. The measurements were carried out with the spectrometric apparatus СПК-1 (SPK-1) and the horizontal model of a black body. The brightness of the lamp was equalized with the brightness of the emitting cavity of the black body at the temperature of equilibrium between liquid and solid gold (1063°C). The current through the lamp was measured at the same time. The accuracy of the calibration is analysed and the possible experimental errors

Card 1/2

A study by the photoelectric ...

S/196/62/000/008/009/017
E032/E514

are discussed. The results of calculations of the various
errors $\Delta T^{\circ}\text{C}$ are given in a table.
4 figures, 5 references.

ASSOCIATION: VNIIM, Leningrad

[Abstractor's note: Complete translation.]

Card 2/2

KIRENKOV, I. I.; GORDOV, A. N.; IZRAILOV, K. S.; DIYKOV, U. V. (4)

"Nouvelles mesures des temperatures thermodynamiques aux points-reperes de l'etain, du cadmium, du zinc et de l'or"
Report presented at the 6th Session of the Advisory Committee on Thermometry to the International Committee on Weights and Measures, Sevrres, France, 25-27 Sep 62

Institut de Metrologie D. I. Mendeleev (U. R. S. S.)

KIRENKOV, I.I.

Investigating thermodynamic temperatures of check points. Izv.tekh.
no.4:14-15 Ap '62. (MIRA 15:4)

(Thermometry)

S/115/62/000/005/001/006
E032/E414

AUTHORS: Krakhmal'nikova, G.A., Kirenkov, I.I.

TITLE: Spectropyrometric apparatus at VNIIM

PERIODICAL: Izmeritel'naya tekhnika, no.5, 1962, 18-19

TEXT: The spectropyrometric apparatus CП-4K (SP-4K) was designed for fundamental metrological work at high temperatures. A detailed description of it has been given previously by V.V.Kandyba, V.A.Kovalevskiy and G.L.Iosel'son (DAN SSSR, v.4, 1956, 108; Izmeritel'naya tekhnika, no.2, 1956) and V.Ye.Finkel'shteyn and N.G.Starunov (Pribory i tekhnika eksperimenta, no.3, 1960). It is based on the null-point modulation method of brightness equalization. It is being used to set up a temperature scale with a maximum possible accuracy. The sensitivity threshold in the spectral region 0.47 to 1 μ is 0.02 to 0.05° with a bandwidth of 0.01 to 0.03 μ , source temperature of 1063°C and a measuring-circuit time constant of 5 sec. The SP-4K apparatus incorporates a new modulator developed at KhGIMIP and described by V.A.Kovalevskiy (Pribory i tekhnika eksperimenta, no.3, 1959). Special steps were taken to

Card 1/2

Spectrophotometric apparatus ...

S/115/62/000/005/001/006
E032/E414

exclude scattered radiation in the monochromator and in the external optics, and to ensure convenient and reliable adjustment of all the optical devices. These improvements are said to ensure the "required accuracy of standardization of the temperature scale". ✓

Card 2/2

KIRENKOV, I.I.; GORDOV, A.N.; IZRAILOV, K.S.; DIYKOV, U.V.

New measurements of thermodynamic temperatures of reference
points of tin, cadmium, zinc and gold. Izv. vuzov. no.9:31-35
S '62. (MIRA 15:11)

(Thermometry)

42675

S/589/62/000/063/013/021
E202/E492

24.6800

AUTHOR: Kirenkov, I.I.
TITLE: Method of accomplishing temperature scales in excess
of 10000°C
SOURCE: USSR. Komitet standartov, mer-i izmeritel'nykh
priborov. Trudy institutov Komiteta. no.63(123).
Moscow, 1962. Issledovaniya v oblasti eplovykh i
temperaturnykh izmereniy. 162-164

TEXT: A brief and largely speculative consideration of suitable
plasma source and means of measuring installations capable of
temperature scale calibration within the region 10000 to 50000°C
is discussed under two headings: the choice of plasma source
and the choice of measuring instrumentation. For the former
150 to 400 μ sec impulse duration plasma source generator type
ЭВ-39 (EV-39) is recommended working with an optical system using
a monochromator. The suggested measuring system is based
essentially on a pyrometric comparator method; however, in view
of the short impulse duration, a low inertia system with the
time constant of 10^{-5} to 10^{-6} sec is recommended. For this
new modulation systems have to be developed; two are suggested:
Card 1/2

Method of accomplishing ...

S/589/62/000/063/013/021
E202/E492

a) electric modulation in which the two sources to be compared are fed to separate photo cells which form a part of an HF bridge and
b) Kerr cell modulation in which case the two sources are first plane polarized at 90° or less and then jointly fed to the HF voltage controlled Kerr cell. To reduce the heat inertia, instead of a null method a comparison of the photo-current component observed on the cathode-ray oscillograph is to be preferred. ✓

ASSOCIATION: VNIIM

SUBMITTED: February 13, 1961

Card 2/2

KIRENKOV, I. I.

Effective wavelength of a photoelectric spectropyrometer. Izv.
tekh. no.6:16-18 Ja. '63. (MIRA 16:8)

(Photoelectric measurements)
(Pyrometers)

KIRENKOV, I.I.

Divergences between the thermodynamic temperature scale and the international operating temperature scale. Ibid. Inst. Kva. stand. mer i izm. prib. no. 7:15-13 1964.

New method for calculating the effective wave length. Ibid. 178-81

Effect of scattered light on precision optical pyrometers. (MIRA 17:9)
Ibid. 85-90

1. Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii im.
D.I. Mendeleeva.

AREF'YEVA, N.V.; DIYKOV, U.V.; DOBROKHOTOV, A.G.; IZRAILOV, E.S.; KIPENKOV I.I.;
NIKITENKO, L.V.; SHEMETILO, N.V.

New measurements of thermodynamic temperature with a gas thermometer.
Trudy inst.Kom.stand.mer i izm.prib. no.71:14-29 '63. (MIRA 17:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii im.
D.I. Mendeleyeva.

KIRENKOV, I.I.

Principal metrological problems in temperature measurement.
Izm. tekhn. no.12:22-25 D '63. (MIRA 16:12)

KIRENKOV, I.I.; KIRKHALOVA, G.A.

Spectropyrrometer unit for plotting a temperature scale by means of the photoelectric method. Izv. inst. kom. stand. ser. 1 izm. prib. no. 71-30-45 1963.

Absorption light filters used in temperature measurements in a wide spectral range. Ibid. 71 77 (MIRA 17:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii im. D.I. Mendeleeva.

KIRENKOV, I.I.; LAPINA, E.A.

Calculating color temperature by the Planck formula. Trudy inst.
Khm.stand.mer i izm.prib. no.71 91 73 1983.

(MIRA 12:9)

1. Vsesoyuznyy nauchno issledovatel'skiy institut metrologii im.
D.I. Mendeleeva.

LEINHOFF, I.I.; LARINA, E.A.

Methodology and apparatus for measuring the effective wavelengths of color pyrometers. Nov. March-April, 1964. Paper. WRIIR no.3:33-36 '64 (1964 1964)

KISENKOV, I.I.

Characteristics of the development of the radiation pyrometry.
Izm. tekhn. no. 4:42-46 Sp 164. (MIRA 1967)

Abstract, I.I.: KICHENALIEVA, G.A.

precision of setting up a high-temperature ... using the
photoelectric method. Rev. nauk.-i tekhn. Ser. Khim.
no.3:29-31 1964. (Ind. 1:2)

L 34065-66

ACC NR: AR6017180

SOURCE CODE: UR/0058/65/000/012/A022/A022

AUTHOR: Kirenkov, I. I.

TITLE: Development of thermodynamic temperature scale

SOURCE: Ref. zh. Fizika, Abs. 12A224

REF SOURCE: Tr. in-tov Gos. kom-ta standartov, mer i izmerit. priborov SSSR, vyp. 76(136), 1965, 102-108

TOPIC TAGS: scientific standard, metrology, temperature measurement, thermometry, research facility

ABSTRACT: It is indicated that to ensure the temperature-measurement accuracy called for by present practice, it is necessary to carry out metrological investigations of both thermodynamic temperature scale and the international practical scale. The article reports measurements of thermodynamic temperature, and of solidification of gold, carried out at the VNIIM with the VNIIM gas thermometer No. 3, and also the development of new apparatus for the measurement of thermodynamic temperatures: 1) a gas thermometer based on the two-reservoir method, 2) a pulsed thermal noise thermometer, 3) an electroacoustic gas thermometer, and 4) a nuclear quadrupole thermometer. Yu. Vaysberg. [Translation of abstract]

SUB CODE: 20

Card 1/1

KIRENSKAYA, L.I.,

YAROVENKO, M.N.; MOTORNYY, S.P.; KIRENSKAYA, L.I.; VASIL'YEVA, A.S. . .

Reaction of halide anhydrides of fluorinated carboxylic and
thiocarboxylic acids with sodium azides. Zhur. ob. khim. 27
no.8:2243-2246 Ag '57. (MIRA 10:9)
(Sodium azide) (Acids, Fatty)

KIRENSKAYA, L.I.

YAROVENKO, N.N.; MOTORNYI, S.P.; KIRENSKAYA, L.I.

Formation of difluoroketene and its polymer. Zhur.ob.khim. 27
no.10:2796-2799 0 '57. (MIRA 11:4)
(Ketene) (Polymerization)

5(3)

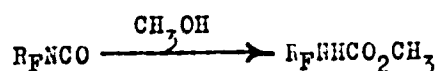
507/79-29-7-12/83

AUTHORS: Motornyy, S. P., Kirenskaya, L. I., Yarovenko, K. N.

TITLE: New N-Trifluoromethyl Carbaminates
(Novyye efiry N-triflormetilkarbaminovoy kisloty)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 7, pp 2157-2159 (USSR)

ABSTRACT: According to data from publications fluorinated alkyl isocyanates show a high reactivity (Ref 1). They enter especially easily reaction with alcohols and phenols to form esters of N-perfluoro alkyl carbamic acid, e.g.



In papers published earlier by the authors (Ref 2) the reactions of trifluoromethyl isocyanate with halogen hydracid and mercaptans were described. Since the investigation of the chemical properties of alkyl isocyanates and their fluorinated derivatives is of certain interest, the present paper deals with the synthesis of some new N-trifluoromethyl carbaminates. The constants and analytical data of the new compounds are tabulated.

Card 1/2

New N-Trifluoromethyl Carbaminates

SOV/79-29-7-12/83

Trifluoromethyl isocyanate reacts with normal alcohols under strong heating. For this reason the reaction of the equimolecular amounts of trifluoromethyl isocyanate and alcohol was carried out in a closed glass ampoule with intense cooling. Yields were 55 to (in individual cases) 70-85 %. More details are given in the experimental part. There are 1 table and 2 Soviet references.

SUBMITTED: June 6, 1958

Card 2/2

KIRENSKAYA, Z. YA.

CA

9

Cold-brittle zones of aluminum and its alloys. Ya. B. Fridman and Z. Ya. Kirenskaya. *J. Tech. Phys.* (U. S. S. R.) 10, 554-57 (1940). Certain Al alloys, or Al containing certain impurities can undergo transition to a cold-brittle state. Cast Al (99.95%) becomes brittle on cooling from 20° to -70°. Pressed Al from the same melt does not show any signs of cold-brittleness at temperatures as low as -195°. Pure cast Al (99.995%) is not cold-brittle. Most cast Al-alloys (e. g., Al + 10% Mg) which are plastic at 20° show a rapid fall of the impact strength with the decreasing temp. The pressed alloys of the type Al + 8% Mg and Al + 10% Mg are decidedly cold-brittle as a result of inhomogeneity of grain boundaries. Kuznetsov Gainsow

ASB SLA METALLURGICAL LITERATURE CLASSIFICATION

MA

KIRENSKAYA, Z. YA,

18

Evaluating the Workability of Cast Alloys. Ya. B. Fridman and Z. Ya. Kirenskaya (*Zashch. Lab. (Works' Lab.)*, 1941, 10, 89-86; *ibid.*, 1941, 11, 1077; *ibid.*, 1943, 37, 3437) — [In Russian.] The workability of brittle cast iron, magnesium, and aluminum alloys can be estimated by punching discs, 12 mm. in diameter by 3-5 mm. thick, from the alloys, and observing cracking in the discs. The method is as reliable as the measurement of elongation in tensile test specimens.

1943

KIRENSKIY, G.

"Use of Synestrol in Holstein, Heifers and Brown Cows Lactiferous.
Veterinariya, No. 6, 1962. Chief Vet., -el946-.

2

SOV/162-58-3-13/26

9(3)

AUTHOR:

Kirenskiy, I.G.

TITLE:

The Stabilization of the Reflex Klystron Frequency by Means of Signal Time Delay (Stabilizatsiya chastoty otrazhatel'nogo klistrona metodom ~~zaderzhki~~ signala vo vremeni)

PERIODICAL:

Nauchnyye doklady vysshey shkoly, Radiotekhnika i elektronika, 1958, Nr 3, pp 93-99 (USSR)

ABSTRACT:

The author suggests a frequency stabilization network for a cm wave klystron with a high-frequency discriminator, working according to the time delay method. Figure 1 shows the block diagram of this network. He presents formulae for this network and derives differential equations for the stabilization. The network was tested experimentally with a cm wave klystron and a 3 m long RK cable for signal delay, whereby an auxiliary frequency of 30 mc was used. The experimental results show that the network provides the stabilization of nine frequencies within the investigated range in accordance with the results of theoretical

Card 1/2

9(2)

AUTHOR:

Kirenskiy, I.G.

SOV/142-58-6-10/20

TITLE:

Stabilization of the Frequency of a Reflex Klystron by Means of Time Delay of the Signal (Stabilizatsiya chastoty otrazhatel'nogo klistrona metodom zaderzhki signala vo vremeni)

PERIODICAL:

Izvestiya vysshikh uchebnykh zavedeniy - Radiotekhnika, 1958, Nr 6, pp 694-704 (USSR)

ABSTRACT:

The article describes a system for stabilization of oscillators in the centimeter range by means of the time delay of a high-frequency signal, a system which, the author claims, is applicable to circuits other than the one described, and useful over a wide range of frequencies. This particular analysis is for a system with auxiliary modulation of the klystron oscillations, and is made on the basis of a number of stated simplifying assumptions. The principle of operation of the circuit (Figure 1) is described, and the author derives a series of expressions leading to determination of the frequen-

Card 1/4

SOV/142-58-6-10/20

Stabilization of the Frequency of a Reflex Klystron by Means of Time Delay of the Signal

cies of the system under steady state conditions (eq 25,25b), and the stabilized frequencies in operation (eq 26,26b). Klystron frequency, at the moment the circuit is closed, will be equal to one of the stabilized frequencies, and will be determined by the HF oscillator frequency at that moment. For small deviation of the klystron frequency from the stable values the differential equation of the circuit becomes linear, allowing estimation of the stability of the equilibrium condition by means of the theory of linear systems of automatic control. Stability conditions for the system for small deviations are computed. An experimental check of the circuit, as in figure 1, was performed in the 9100-9600 mc range, using a K-19 klystron, and a waveguide system with tubes 23 x 10 mm. The standing wave coefficient for HF elements throughout the indicated range did not exceed 2.5. An RK

Card 2/4

SOV/142-58-6-10/20

Stabilization of the Frequency of a Reflex Klystron by Means of Time Delay of the Signal

type cable was used for signal delay. The auxiliary frequency oscillator-amplifier was tuned to 30 mc. Measurements were made with a wavemeter with an absolute accuracy of 5×10^{-5} , and a differential accuracy of 2×10^{-5} . Basic conclusions of the approximated analysis were supported by the experiments, and the given circuit allows stabilization on any of nine frequencies from 9100-9600 mc (Table 1). Discrepancies between measured and computed frequency values are attributed to reflections in the HF channel. Stability of the klystron frequency over an 8-10 hour period was of the order 10^{-4} . In concluding, the author notes that this method can be used to measure signal delay time in transmission lines at centimeter wavelengths. This article was recommended by the Kafedra radiopriyemnykh ustroystv Leningradskogo elektrotekhnicheskogo

Card 3/4

KIRENSKIY, I. G., Cand Tech Sci -- (diss) "Stabilization of the frequency of the klystron generator method of time delay of signal." Leningrad, 1960. 17 pp; (Ministry of Higher and Secondary Specialist Education RSFSR, Leningrad Electrical Engineering Inst im V. I. Ul'yanov (Lenin)); 200 copies; price not given; (KL, 17-60, 155)

27771

S/058/61/000/007/079/086
A001/A101

6,4300

AUTHOR: Kirenskiy, I.O.

TITLE: Application of the method of variable parameters to calculating static characteristics of ultrahigh frequency discriminator

PERIODICAL: Referativnyy zhurnal. Fizika, no. 7, 1961, 334, abstract 7Zh385 ("Izv. Leningr. elektrotekhn. in-ta", 1959, v. 39, 84 - 97)

TEXT: . To calculate static characteristics of ultrahigh frequency discriminator in which additional frequency conversion is used, the author proposes to consider it as a system with variable parameters. A particular frequency discriminator is considered functioning by the method of time delayed signals. The ultrahigh frequency channel of frequency discriminator consists of three double waveguide T-joints, a coaxial cable ensuring delay of signals, and two detector sections. The voltage of a low, in comparison with the working one, frequency is fed to the diode of one section. When ultrahigh frequency is fed into oscillation system, a signal emerges in the output of the amplifier connected with the second detector section; the amplitude and phase of this signal depend on the frequency of oscillations of ultrahigh frequencies. The described circuit of the frequency

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Application of the method ...

discriminator is substituted by an equivalent one, on the basis of which differential equations are compiled being solved by the method of variable parameters. Conductivities of diodes are taken for variable parameters. As a result of solution of equations it is shown, that dependence of the output voltage on the working frequency within a definite range has the form of discriminator characteristic under static conditions. Frequencies are determined where the amplitude of an error signal drops to minimum, and the phase suffers a discontinuity of 180° (so-called transition frequencies). Recommendations are given for selecting waveguides for frequency discriminators in the ranges 3 and 10 cm. The frequency discriminator investigated experimentally had the average wavelength 3.2 cm and frequency of auxiliary modulation 30 Mc. A satisfactory shape of its characteristics was preserved in the range of 500 Mc.

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Yu. Belyanin

[Abstracter's note: Complete translation]

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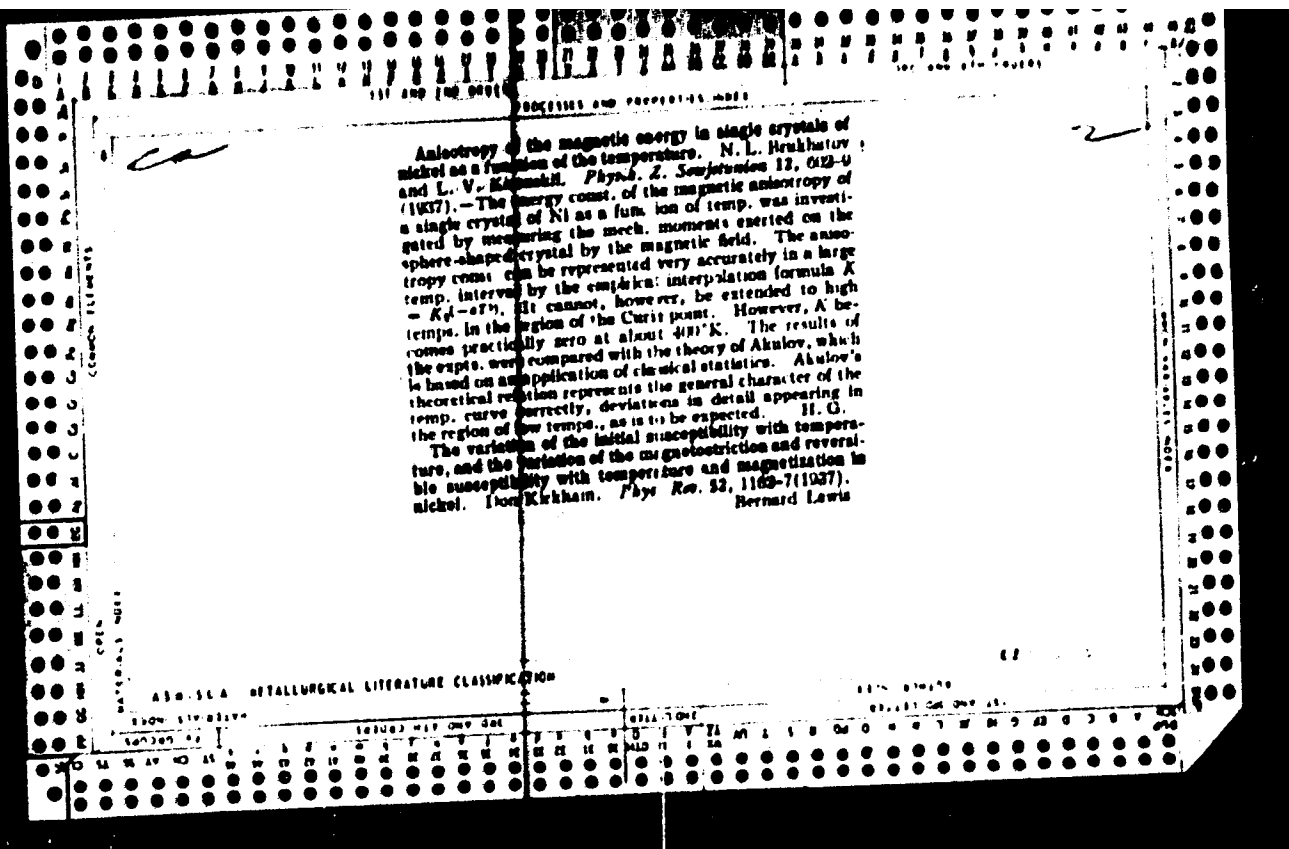
KIRENSKIY, I.G., aspirant

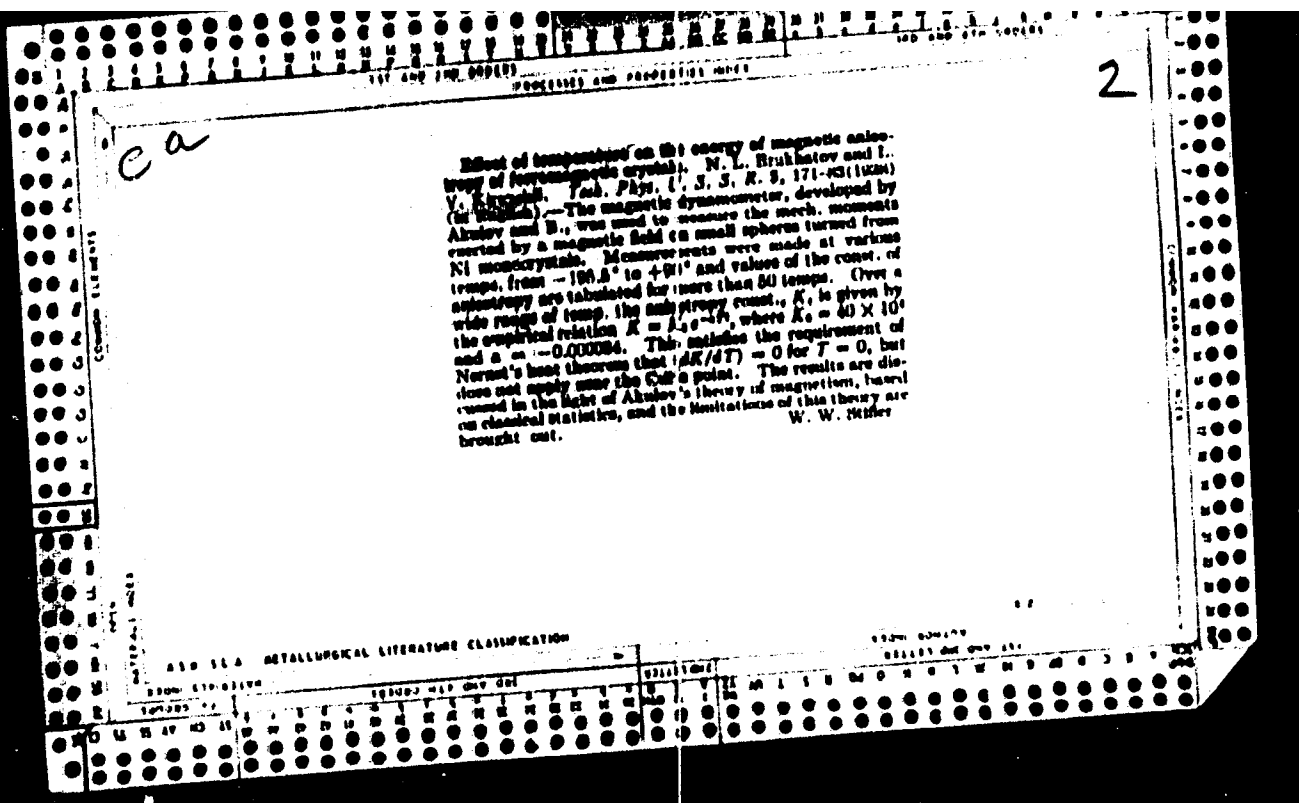
Use of a variable parameter method for calculating the static
characteristics of a microwave frequency discriminator. Izv.
LETI 57 no.39:84-97 '59. (MIRA 15:10)
(Radio filters) (Microwaves) (Electric filters)

KIRENSKIY, L. V.

Temperature dependence of the curve of magnetization. L. Kirenskiy. *J. Exptl. Theoret. Phys. (U.S.S.R.)*, 879-80 (1937).—According to the Akulov theory (*Z. Physik* 69, 78 (1931)) the const. ferromagnetic anisotropism, k , is related to the intensity of magnetization at satn., J_{so} , by the equation $k = k_0 P_s(J_{so}/J_{so})$. The Bloch formula $J_{so} \approx J_{so} [1 - c(T/\theta)^{3/2}]$ with $c = 0.189$ was experimentally verified and used to calc. k_0 and J_{so} for iron by extrapolation. The k formula is experimentally verified for $T = 90$ to 200°K . and calcd. curves are given for 278 and 578°K . F. H. Rathmann

Nature of electrical conductivity of solids





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The Temperature Dependence of the Anisotropy of Magnetic Energy of Single Crystals of Nickel. N. L. Ibragimov and L. V. Kopylovskiy (*Zhur. Eksper. i Teor. Fiziki* [*J. Exper. Theoret. Physics*], 1934, 8, (2), 194-205). [In Russian.] See abstract from a German source, *Met. Abs.*, 1934, 8, 75.—N. A.

ASIS-SLA METALLURGICAL LITERATURE CLASSIFICATION

1934-1935

COLLECTOR

1934-1935

PROCESSING AND PROPERTY INDEX	
134	2
<p>A new magnetocaloric effect N. S. Akulov and L. V. Kirenskiy. <i>J. Phys. (U. S. S. R.)</i> 3, 314 (1940) (in German).—Theoretical considerations lead to the conclusion that when a ferromagnetic monocrystal is rotated in a strong magnetic field at low temps. strong periodic cooling and heating must take place. This is verified by exper. on Ni monocrystals. At liquid N temps. the exper. data show good agreement with the course of the curve given by the equation derived: $\Delta T \propto (4\pi K/c) T^2 (1 - \frac{1}{2} \sin^2 \phi)$ sin²φ, where c = heat capacity, φ = angle of rotation and a and K are taken from measurements of Bryukhatov and Kirenskiy (<i>C. A.</i> 33, 179). This new effect is quite different from the magnetocaloric effect of Weiss.</p> <p>F. H. Rathmann</p>	
<p>ADD SLA METALLURGICAL LITERATURE CLASSIFICATION</p>	

KIRENSKIY, L. V.

PA 69T95

USSR/Physics

Magnetism

Magnetic fields

Mar/Apr 1948

"Relation of the Energy Constant of Magnetic Anisotropy to the Intensity of the Magnetic Field," L. V. Kirenskiy, 5 pp

"Is At Kent SSSR, Ser Fiz" Vol XII, No 2

In 1941 a meteorite which had fallen near Boguslevka proved on examination to be monocrystalline. Describes electromagnetic experiments performed on a disc cut from this meteorite. Presents sketches of apparatus and magnetograms obtained. Results show that Tsvetkov's formula (Phys Rev, 1939) is valid for

USSR/Physics (Contd)

Mar/Apr 1948

field strengths up to 30,000 oersteds, and not more than 4,000 oersteds.

69T95

KIRENSKIY, L. V.

PA 26/49T81

USSR/Metals
Nickel
Magnetism

Jan 49

"Thermal Dependence of the Energy Constant in the Magnetic Anisotropy of Nickel," L. V. Kirenskiy, Krasnoyarsk State Pedagogical Inst, 4 pp

"Dokl Ak Nauk SSSR" Vol LIV, No 1 - 1953-6

Experimental investigation of subject dependence in temperature interval from -183° to Curie's point. One magnetogram was obtained, showing changes in the mechanical moment with temperature. From this data, three graphs were developed,

26/49T81

USSR/Metals (Contd)

Jan 49

showing thermal dependence in nickel, and linear dependency of $\log(K \cdot 10^{-4})$ on $T \cdot 10^{-4}$. Submitted 29 Sep 48.

26/49T81

KIRENSKIY, L. V.

PA 25/49T100

USSR/Physics
Hysteresis, Magnetic
Iron

Jan 49

"Temperature Dependency and Temperature
Hysteresis in the Magnetic Anisotropy of
Meteoric Iron," L. V. Kirenskiy, Krasnoyar-
skiy Pedagogical Inst 4 pp

"Dok Ak Nauk SSSR" Vol LXIV, No 2 - 41-4

Experimental determination of these depend-
encies, with results shown in four graphs. Sub-
mitted 29 Sep 48.

25/49T100